

4/11/94 Melia N. Can

000011

1:50 Bryan Hyde called back (Colo. Wtr. Conservation Board 866-3441)

Fax 866-4474

He doesn't think there is any info for the Rico area. There was a CGS report on a creek that channeled into a mine & emerged into the Dolores River. I think I saw that report at the USGS & it is outside the Rico TDLs. He is locating the article anyway - for someone else - and I can see it when I go over to his office for Brighton - Fort Lupton. There is also an "approximate map" that is probably of little use. Janet Coles called back - Colo. Natural Areas - Heritage Program was started in her department before being split off. She would only duplicate their info except for geological areas of interest which aren't of use to us.

4/11/94

MVC

4/25/94

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Michael V. Caw

Received Colo. Natural Heritage Program database search results.

Not much in database - a few riparian plant/forest communities

Also - on 4/20/94 I talked to Lee Carlson of FWS. I faxed him maps of the site w/ request a list of T+E species

4/25/94 MOC

5/16/94

Michael V. Cam

000013

Finished reading geological reports - no discussion of mercury.
Went back to B. of Mines

- Long discussion w/ Joe Nugent about area. He doesn't believe mercury is from mine - they are happy with ongoing reclamation. He thinks illegal dumping is the cause and told EPA that when fish samples were high.
- Searched microfiche files thru 1984 and a very thin file w/ reports thru 1987. No mercury but they did run a cyanide loop.

- Oct 24, 1987

Contractor, CDK, tearing down old buildings & structures & sub-grading. Material & chemicals useful to other mills was transported & the rest taken to approved dump sites. Selling mill at Blaine Adit & site property is for sale.

- Oct 2, 1987 ^{State of} Colo., Div. of Mines Information Rpt by Joseph W. Davies
Sec 20 40 N 10 W

Anaconda Minerals (R.L. Dent, Env. Manager, 555 17th St, 293-7938)

No activity scheduled for 1987. Old mill with removed as well as leach pad/plant bldgs & fixtures. All haz. waste removed & area subgraded. Installed small wtr treatment plant & settling ponds.

5/16/94 M/C

5/17/94

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Michael V. Carr

Doesn't pass CERCLA Elig. Form -

Went thru well listings

3 household in Sec 25.23 \approx 1 mile upgrad from Rico,

slightly up & across River from settling ponds

1 industrial owned by Rico Revel. at upper end of settling ponds

1 other near settling ponds owned by CDOT

1 household in Rico

1 uncatagorized in Rico

Surface wtr diversions

12 w/in 15 miles downstream - domestic, ^{irrigation} industrial, stock, fire

1140 Called Stan Powers - out to lunch.

1145 Called John Reindinger - out in field

1150 Called Ben Spruase back - BLM Montrose geologist, Mercury wasn't used at R-A as far as he knows, also doesn't think mineralogy is correct for elevated natural mercury compounds. A theory for McPhee is maybe placer mining before reservoir was built but he doesn't know of any history of that.

1500 Stan Powers

- Bureau of Rec conducted water & sediment sampling in Silver Creek and Dolores River & some tributaries in 90, 91, 92, 93.

- Mercury detect. limit was 0.05 $\mu\text{g}/\text{l}$.

- Mercury in sediments in Silver Creek

- Silver Creek is pretty bad w/ metals loading. Tailings go into creek & ponds on top of tailings leak into creek.

- Dolores R. is not as bad. CDH controls discharge from ponds thru NPDES permit

~~No mercury in wtr samples down to McPhee. Sediment shows background levels until a tributary near McPhee which contains elevated mercury. This tributary has a~~

5/17/94 cont. MVC

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- Recent study suggests that decaying matter in McPhee (due to poor contractor performance during construction) makes mercury more bioavailable while cold high-altitude streams don't contain organic matter to convert the mercury. But Stan doesn't think problem w/ mercury is from R-A district.
- Study was done on power plants on 30km radius - mercury doesn't appear so it's going somewhere, R-A is downwind in storm path from Navajo power plant.
- Call Mark Lundquist at MK - data package from sampling was sent to him on 1/12/94.
- Call Jim Yalunkey in B-of-R in Denver. He did analytical analyses.

1520 Called Jim Yalunkey 236-3778

- Silver Creek is bad. But after confluence no mercury in water samples and only background in sediment samples.
- Mercury in sediments near Rice and in Silver Creek.
- Tributary above McPhee contains elevated mercury. There is an asphalt plant and timber treating up the tributary.
- Samples analyzed by USGS labs, Berringer Lab & Weston which had QA/QC problems with mercury.

1545 Went to see Pat Smith

- She didn't intend for us to be an attribution of mercury in reservoirs
- She is concerned w/ metals loading in Silver Creek/Dolores

5/17/94 MVC

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5/18/94

Michael V. Carr

0810 Called Yahnke back - he will get Stan's Ok & send report on disc. They have found mercury throughout the basin - he is leaning toward airborne source (i.e.: power plants).

Called Bob Clark - CROW Montrose (303-249-3431)

- Actual search for T & E should be thru FWS (FWS)

- State Species of Concern provided by CROW - search will take 730 days

- Send request to Ruth Carlson in Durango (biologist)

- He doesn't know of any species of interest in Rico area

1000 Called Lee Carlson at US F&W - he had forwarded my map & request to Grand Junction - Mike Tucker/Terry Ireland 243-2778

1005 Called Mike Tucker - gave me to his supervisor Keith Rose
Keith wasn't very cooperative - he insisted on a 6 month process dictated by law to do an assessment. I will fax a request to him explaining I only need background type info (he says this info is good only for 90 days).

Called Wtr Quality Control Division in Denver 692-3500

Pat Nelson - she was very helpful.

- site has permit

- site is in violation, site is in major facility - an EPA category.

- weekly sampling data goes into PCS (permit compliance system)

call Debora Griffith 294-1382 in NPDES branch of EPA Wtr Management.

- reported monthly in DMR (discharge monitoring report)

- W. Q. C. Commission (Marla Beiberstine 692-3525) has individual stream quality standards.

1130 Called Mary Yahnke in Rico - they have one well used for drinking water. Used to use spring, drilled well in 1990.
Called CDOT in Durango 385-1600, left message.

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5/10/94 MUC

Neighbor (Maxwell) also uses a well for drinking wtr source.
Town Hall 967-2861.

1340 Called Ruth Carlson CDOW in Durango 247-0855 - left message,

called Debra Griffin - left message

Called Marla Beiberstine - left message.

1420 Ted Vickers, Durango CDOT, called back. Well was installed for
toilets, washbasins in maintenance shop but only used for a couple
of years. Wtr was too mineralized & plugged pipes. Well abandoned
& city wtr used in shop now.

1630 Called Nancy McGonigal at Durango Forest Service (works with
John Reindiger). (303) 882-7296.

Property has been sold again by Rio Level Corp to a syndicate
from Phoenix. She will meet w/ them on Friday &
send in a letter next week on who they are & what
they plan on doing w/ property - probably real estate.

Forest Service doesn't have any other concerns about R.A.

Forest Ranger Station is seasonally staffed by volunteers for tourist info

5/18/94 MUC

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5/19/94

Michael V. Can

Cont of draft. of phone calls

Jim Yukube called - Stan is sending him the 1993 sampling data, he will update his report & send it.

He looked at old report - he does show surface water loading of mercury at S.C./P.R. confluence but not at tailings area.

He thinks infiltration on most Colorado tailing piles is very low because they seal themselves off with fines. Any erosion would allow infiltration though.

0900 Called Marla Bevestine at W.Q.C. Commission - she will send stream standards for Dolores River Basin including Silver Creek.

0905 Called Ruth Carlson - CDOW Durango. Not too friendly - busy.

She will pull some info together, including fishery, and send it out next week.

- Wilddata is big cumbersome database - she would need to change me to access it & doesn't think it's worth it.

~~Barbara~~ Deborah Griffith called back. Need Freedom of Info Act request addressed to Louie Wiley, 8th Floor (video elevators).

1500 Called Bob Dent at Anaconda - he will call back tomorrow

1505 Called Mlc - Marla said Marla Lundquist no longer works for them - Susan Ford works on the reservoir problem. She is out till next week but will call me.

5/19/94 MVR

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5/26/94 Michael V. Carr

Cont of typing drafts

Bob Dent (Anacosta) called.

- Nothing much to add - he hasn't been on the site for > 10 years
- They were drilling for water. Mostly uphill from ponds & a little just inside the adits.
- They did a lot of environ work while there - plugging adits, capping flowing wells near ponds, etc.

5/26/94 MJC

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5/23/24/94 Michael V Cann
Cont with draft writeup.

5/29/94 MLC

000021

5/25/94 Michael V. Carr

J F M A M J J A S O N D
Precip 26 29 27 23 18 16 42 39 32 31 23 25 = 326 = mean annual precip = 12.8"

Evap 0 2 12 76 53 49 55 42 33 29 9 0
26 24 15 0 0 0 0 0 0 2 12 25 = 104 = net precip = 4.1"

Census data

92 residents in Rico (2.09/household)

123 residents in Rico Division (2.12/household)

1504 " " Dolores Cty (2.59/household)

From logs:

0-1/4	= 0 dots	= 0	} 102
1/4-1/2	= 3 dots	= 78	
1/2-1	= 80% of Rico + Horse Gulch (Palmer)	= 76	
1-2	= 20% of Rico	= 18	
2-3	= 0	= 0	
3-4	= 0	= 0	

Paul Arrell called - don't need Freedom of Info. Act letter to access EPA Wtr. Management data. Call Janet Fajita to set up time since Debra Griffith is out of office. 293-1594. 4th floor - recop.
- Called Janet - 9:00 AM tomorrow.

5/25/94 MDC

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5/26/94

0900 Met w/ Janet Fujita for Water Management Division files
 - Apparently some wrangling between EPA & CPH as to who can permit the site.

- This was mostly an enforcement file.
 Colorado Discharge Permit System (CDPS) # CO-0029793 renewed 2/1/94

Parameters	30 day avg	Daily max	Collection freq.
Flow (MGD)	2.6 (design flow)	Report	Daily
TSS (mg/l)	20	30	Weekly
pH	-	6.5-9.0	Daily
Total Rec. Cadmium (mg/l)			weekly
thru 1/31/95			
Jan-April	.0024	.0048	
May-July	.0053	.0110	
Aug-Dec	.0075	.007	
beg. Feb 1/95	.0004	Report	
T.R. Copper			weekly
thru 1/31/95	.03	.06	
beg. 2/1/95	.024	Report	
TR Lead	.0099	Report	weekly
TR silver			weekly
thru 1/31/95			
Jan-April	.0002	.0004	
May-July	.0006	.0012	
Aug-Dec	.0004	.0008	
begin 2/1/95	.0001	Report	
TR zinc	.45	.88	weekly
thru 1/31/95			
beg 2/1/95	.237	Report	

Report summary on monthly DMR (EPA form 3320-1)

NPDES is in effect until 12/30/93 when State took over Treatment system became fully functional April 1, 1984; amended 1986, 19 Ponds.

DMR Review 1/89 - 3/90

Flow	1.1	.87
pH max	8.12	7.7
pH min	6.8	6.9
TSS max	18	60
TSS month max	11.25	33.75

5/26/94 cont

MJC	Arg (#/day) max	
	.01	.01
	month max	1.001
Zn	1.66	2.13
	1.24	1.435
Cd	.18	.0104
	.091	.0079
Pb	.019	.033
	.054	.0225
Cu	.03	.04
	.03	.025
TDS (mg/l)	1878	1352

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Whole Effluent Toxicity (WET) testing added 9/6/89, first WET testing in 1st quarter 1990 demonstrated that effluent was acutely toxic (50% or more mortality to *Ceriodaphnia dubia* and/or fathead minnows).

Discharge is to Segment 2 of Dolores River.

Recreational Class 2

Aquatic life Class 1 (cold)

Agricultural use

Water supply

Required to meet WET by 6/4/93.

Permit expires 9/30/95.

- 9/1980 NOV of CTD order issued by CDH, amended 12/17/81
 - exceeded zinc, copper standards
 - led to wtr. treatment system April 1, 1984.
- 11/12/1984 NOV to Anaconda Mining Company for admin
- Riva Argentine Mining Co was a division of Crystal River Exploration and Production Co.
- 5/18/93 Industrial Wastewater Inspection Rpt by Jim Horn.
 - No haz waste onsite
 - Wastewater flowing into cyanide basin which may have torn liner.
 - Silver loading in 12/92 but passed WET test.
- 6/18/93 Letter from James B. Horn, District Eng, CDH WQCD to David Sell of RDC. NOV of Colo. W.Q.C. Act. due to late filing of DMR and silver loading. Notes wastewater into cyanide basin.
- 8/30/93 CDH letter to RDC from Kathleen L. Kalanen, Industrial Enforcement Engineer, Permits & Enforcement Section, WQCD.

2nd Quarter 93 WET failed

Ex violation of: TR zinc 62.5 #/day monthly avg
TR zinc 76 daily max
TR cadmium .3 year avg
TR cadmium .4 daily max

Permit
9.5
1.2
.24

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5/26/94 cont MUC

Chronology of Events

- 5/18/90 CDH issues NOV, C/D for violations of TR lead, silver & TSS (Per. 89 f Jan-Feb 90)
- 5/21/90 RDC notified of CDH of Blaine discharge
- 10/19/90 RDC tells CDH of concrete dam in Blaine to route flow to St. Louis
- 10/26/90 CDH report of inspection 11/6/90. Need to cap geothermal spring in Pond 5.
- 6/5/91 CDH sends RDC letter about need to report WET tests
- 6/12/91 CDH tells RDC WQCD will seek civil penalty.
- 7/25/91 SAIC, for EPA, conducts Compliance Sampling Inspection. RDC tells SAIC that TRE is in progress.
- 8/20/91 CDH letter to RDC about 1st Quarter 91 WET failure.
- 8/29/91 RDC letter to CDH - TRE in progress
- 9/19/91 CDH stands behind 5/18/90 NOV.
- 10/17/91 RDC - TRE in progress.
- 11/18/91 CWQC Commission amends permits
- 12/27/91 CDH letter to RDC about CWQCC changes. Asks RDC to get toxicity under control.
- 2/19/92 CDH receives 2/9/91 WET testing.
- 3/11/92 RDC lab calls CDH - TRE not yet initiated.
- 6/23/92 CDH required RDC response to penalty offer.
- 6/26/92 No TRE results received by CDH.

Dec 28, 1993 - Toxicity Test Results by Camp Dresser & McKee - WET test passed
 Nov. 12, 1993 - " " " " Ceratophia d. failed, minnows passed
 April 7, 1993 " " " " passed
 Dec. 30, 1992 " " " " C. failed, minnows passed

Date	CDH letter	from Kathleen L. Kalamen to RDC	Violations	Permitted
3/22/94	TR Silver #/day	30 day avg	.0113	.0081
	TR lead mg/l	daily max	.022	.016
			.014	.009
			.02	.018
2/7/94	CDH letter as above:			
	TR lead		<.013	.009
			.02	.018
12/3/93	TSS mg/l		24	20
			38	30
	TR zinc #/day	30 day avg	11.8	9.5

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5/26/94 cont MVC

10/18/93	TR silver 2/day	30 day avg	.1349	.0081
		daily max	.2452	.016

plus WET test failed for Ceriodaphnia

9/20/93

6/93	zinc (mg/l)	30 day avg	62.5	9.5
7/93			15.8	9.5

1100 Back in office

Called Kathleen L. Kalamen 692-3603

R-A is under increased scrutiny right now to try to get them to clean up discharge. Cannot locate officer of RDC. Doesn't know about new owners.

Received FWS T/E list.

1300 Called Nancy McGarrigal in Durango F.S.

Mike Theile ^{Realty} in Telluride (703) 728-5440 represents

Azure Inc, Ollie Swanky out of Phoenix 602 953 6525

Called Theile & left message - need to find out how much property & when sold.

5/26/94 MVC

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5/27/94

Michael V. Conr

Called Therite back

- closed in April of 1994.
- not sure how much property was in transaction
- probably real estate development
- retained Walsh & Assoc. to do an evaluation including any necessary sampling.

Cont w/ typing draft, PA Worksheet.

5/27/94

MVC

5/31/94 Michael V. Cour

Received BOR sampling data

Called Mike Tucker (303) 243-2778 at FWS about game fishing.

He said to call Dave Harper - CPOW in Dove Creek 677-2750

Called Dave Harper - left message.

Called Ruth Carlson - CPOW Durango 247-0855

She didn't think there were much fish in upper Dolores because of too much water during spring runoff & too little water during rest of year

She looked up a fishery biologist book -

1982 - fish sampling from two 500' reaches near Spruce & Burnett Creeks \approx 2.5 miles below Rico.

- 2 rainbow \approx 10 inches

1982 - lower reach

- 1 12" rainbow & 1 small brown & sculpin (bottom dwellers)

1982 - both reaches had improved habitat (instream boulders, check dams, etc.)

1983 - increased browns 5-6", slightly more rainbow, brook

1984 - Greatly increased brown up to 10-12", probably moved in.

Called ^{MVC} Dar: Walker's Fishing Hole in Denver 232-3474

Don't know how fishing is above McPhee. - Call Duranglers

Called Duranglers in Durango 385-4081

Locals do some fishing above McPhee, fish are big enough to keep & eat.

Gave text and Worksheet to Janet. She will give to Tim ASAP tomorrow. Gave John Reese the maps this AM - he will try to have them ready for Tim's ITR.

5/31/94 MVC

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6/3/94

Mukul V. Can

Addressed Tim's ITR comments

Started PRF score

- Two sources - Tailings, ponds, etc and mine drainage,
- Used Ed¹⁹⁸⁴ leachate samples to characterize tailings source

	SW 4	SW 10 (dupe)		
Arsenic		19 ug/l	ppm	.019
Barium		40 ^x		.04
Beryllium		3.3 ^x		.0033
Cadmium		8.2		.0082
Chromium		11		.011
Cobalt		25 ^x		.025
Copper		83		.083
Iron		66 200		66.2
Lead		11 40		1.14
Magnesium		48900		48.9
Manganese		14 400		14.4
Nickel	19 ^x	19 ^x		.019
Silver		9.9 ^x		.0099
Vanadium		6.7 ^x		.0067
Zinc		13 800		13.8

- Used BOR samples from mine drainage to characterize St. Louis Tunnel (28T, 29T, 48T)

Arsenic	65 ug/l (29T)	ppm	.065
Copper	25 (28T, 29T)		.025
Iron	4,400 (29T)		4.4
Mn	2,300 (29T)		2.3
Mercury	.3 (28T, 29T)		.0003
Zinc	80 (28T, 29T)		.08

- Used 75 acres \times 43,560 ^{sq}ft/acre = 3,267,000 sq ft as source area
- Used 1 yd³ = 202 gallons \times 1.5 MGD = 7426 yd³/day for source area

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6/3/94 Cont MDC

- Assumed 1 pound of fish in fishery segment.
- Used BOR sed sample D-10, 2.5 miles downstream as hit (L II)
- " " SW DGT, 1 mile downstream. (LI for D.W.)
- " EYE sed sample SED-8, 1.5 miles downstream (L II)
- " " SW " SW-8 " " " (L II)

Score = 50.12

What If # 1 = Contaminated soil

Assumed LI ^{concentration of} hits to various metals in sources

" 2500 acres = 108,900,000 sq ft. ^(43560 sq ft / ac)

" 123 people at L II Score = 53.23 = R-ASOIL.HPS

" 123 people at L I = 70.79

What If # 2 wetlands

Rare communities don already have pathway score to 60 with surface wtr pathway maxed out at 100 from fishery.

Adding wetlands doesn't make any difference.

What If # 3 GW. contamination

6 people is not enough of a target

6/3/94

Michael V. Carr

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9/29/94 Malinda V. Com

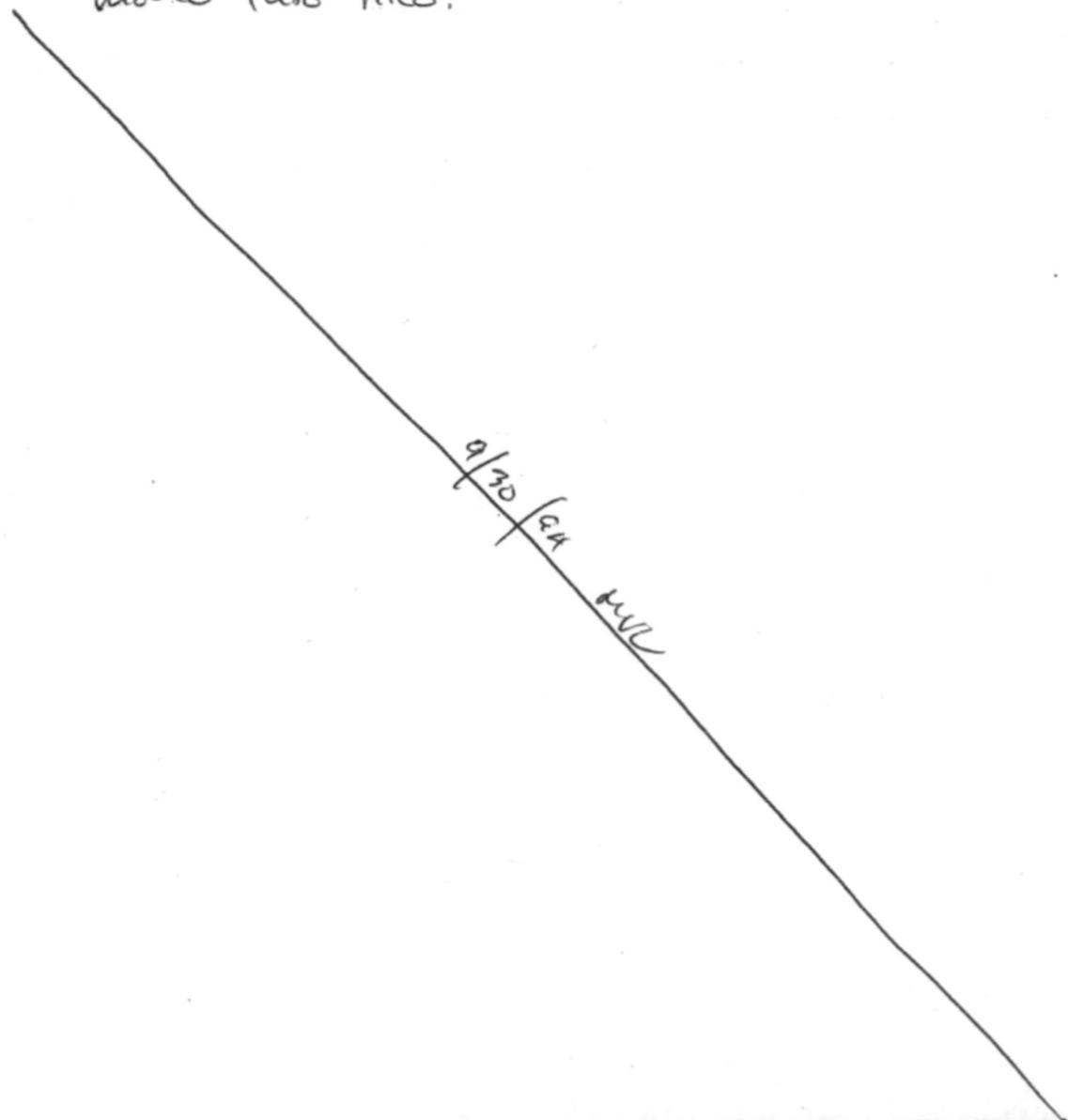
Comments back from EPA (Pat Smith) on draft
SIP document. Pat wants final on her
desk by Oct. 11. That will be tight, will
talk to her about an extension.

9/29/94 MUC

9/30/94 Michael V. Cam

Spoke to Pat Smith

- she has had contact with Walsh & Assoc who are PRP's contractor. They have done some sampling & have found hot spots in town. They assume tailings have been moved into town.
- she want doc. by Oct 11.
- she thinks site will need to become an ESI & will be NPL list.
- most of her comments hinge on tailings being moved into Rico.



~~9/30/94~~ MVL

000032

10/4/94 Michael V. Carr
Received T+E lists from DOW & FTW in June.
Lists are much the same as phone calls said.
Began addressing comments.
Went to Pats office & left note

1405 Called Pat-

She said that Stan Powers (B. of Rec) in Durango
has said that tailings were moved into Rico
This is in her Record of Communication that
reopened the site.

Called Powers, he is gone for the day.

~~10/4/94 MVC~~

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10/5/94 Michael V. Cam

Continued with comments.

Called Powers

- they were in Rico approx 2 years ago as part of the water quality study when a resident approached them about street cover from tailing piles. B&R did not do any soil sampling.
- He said that tailings for cover appear to be coming from large tailings piles on hills to southeast of Silver Creek, east of Rico.
- He doesn't have any idea how much tailings has been removed or how much of Rico has been covered. No idea when procedure started but has probably been going on for years.

With the town of Rico as a source, all populations in distance rings need to be recalculated.

10/5/94 MUC

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10/6/94 Michael V. Con

Finished comments & turned doc into word processing.
~~Tried to find Tech Pub #35 of Utah Water Rights at
USGS - they don't have it.~~

~~Talked to Luke Chavez about it - he said not
to worry about the publication, just removed
verbage so interconnection of aquifers is
clear.~~

Talked to John ^{wrong layout} Reindinger in Durango Forest Service office.
Most mines were patented which now makes them
private property. However, there are many scattered,
pie-shaped chunks of public land (forest) in the
private holdings.

Made final corrections & gave to word processing.

10/6/94

000035

10/7/94 Michael V. Cam

Document came out of word processing - Barb said she would review/edit it. But when I checked it I found several errors. Gave it back to Janet to fix.

~~10/7/94~~ MVC

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10/10/94

Michael V. Carr

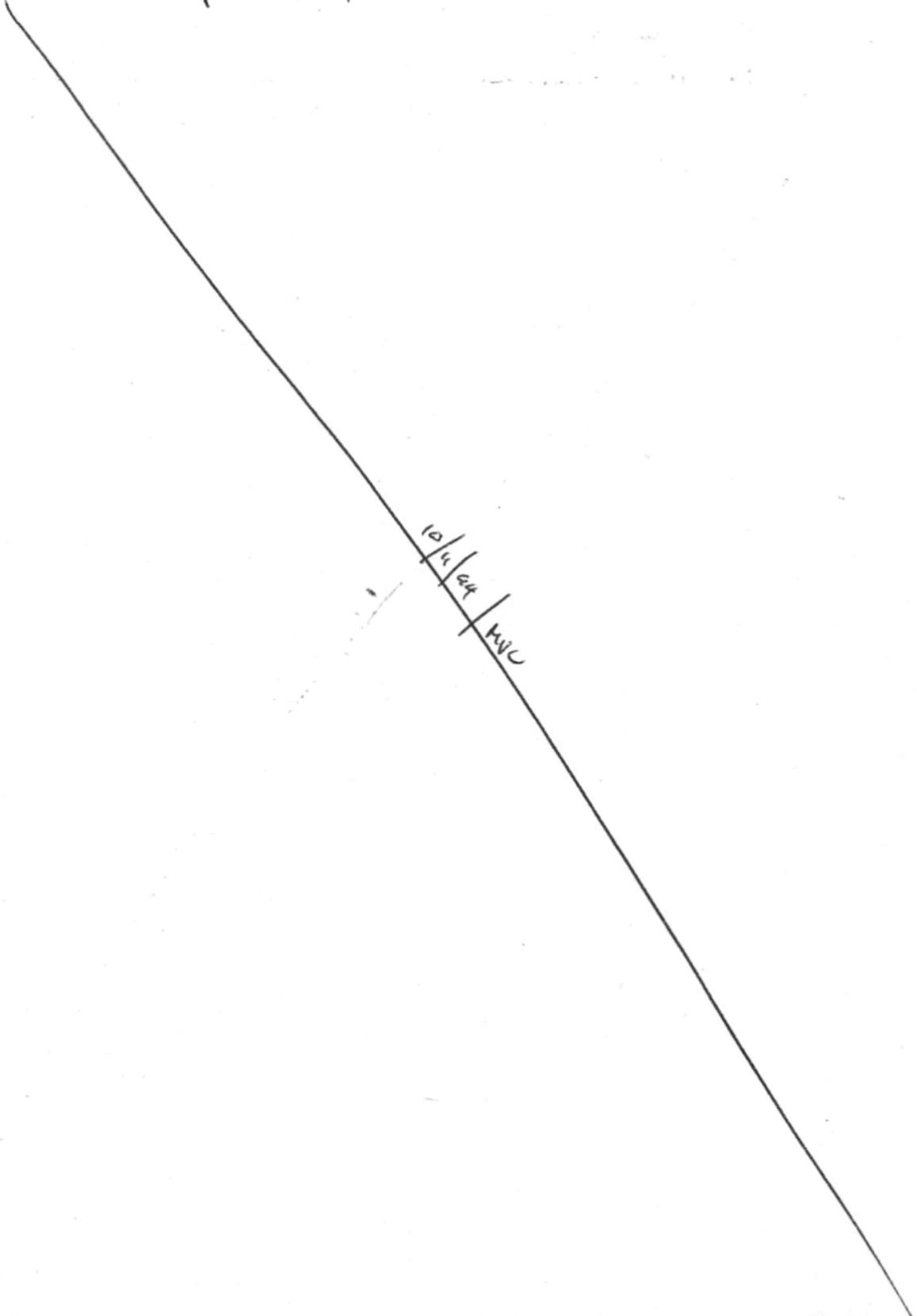
Final final out of word processing, looks good
this time around. Will deliver to Pat
Smith tomorrow.

10/10/94

MVC

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10/11/94 Michael V. Carr
Delivered copies of final document to Pat Smith



10/11/94
MSC